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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,396	08/15/2000	Philippe Daniel	M-8390US	1471

33031 7590 08/20/2004

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EXAMINER	
MOORE JR, MICHAEL J	
ART UNIT	**PAPER NUMBER**
2666	

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/639,396	DANIEL ET AL.	
	Examiner	Art Unit	
	Michael J. Moore, Jr.	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-9,13-17 and 20-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-9,13-17 and 20-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **5-9 and 30-34** are rejected under 35 U.S.C. 102(e) as being anticipated by Chi et al. (U.S. 6,654,341). The Chi et al. reference teaches all of the limitations of the listed claims with the reasoning that follows.

Regarding claim **5**, "receiving frames from a plurality of ring networks at a single network element" is anticipated by sharing switch 508 (single network element) of Figure 5 that is a member of both ring networks 500 and 510 and passes information between them as stated in column 2, lines 57-60. "Monitoring the frames at a single network element for a condition indicative of a failure in one of the plurality of ring networks" as well as "detecting a failure in one of the plurality of ring networks, wherein the detecting the failure comprises reading a portion of a frame" is anticipated by monitor module 424 of Figure 4, which monitors incoming K-bytes for changes indicating an error. "Determining which ring network among the plurality of ring networks is failing" is anticipated by switch 410 of Figure 5, which receives K-byte changes that indicate lines with

signal failure as spoken of in column 5, lines 53-57. Lastly, "rerouting frames of the failing ring network" is anticipated by spans 414 and 416 that initiate line switching, ring switching, or route changing as stated in column 5, lines 59-63.

Regarding claims **6 and 7**, wherein the portion of a frame includes K-bytes of a SONET STS is anticipated by K-byte detection spoken of in column 5, lines 47-63.

Regarding claim **8**, "wherein the act of rerouting frames is in accordance with a Automatic Protection Switching protocol" is anticipated by the SONET automatic protection switching spoken of in column 5, lines 10-21 where errors noted in K-bytes may initiate switching between a working line and a protection line.

Regarding claim **9**, "wherein the plurality of ring networks are SONET BLSR networks" is anticipated by the SONET BLSR networking spoken of in column 1, lines 16-26.

Regarding claim **30**, "means for receiving frames from a plurality of ring networks at a network element", "means for monitoring the frames for a condition indicative of a failure in one of the plurality of ring networks", and "means for detecting a failure in one of the plurality of ring networks, wherein the detecting the failure comprises reading a portion of a frame" are all anticipated by monitor module 424 of Figure 4, which monitors incoming K-bytes for changes indicating an error. "Means for determining which ring network among the plurality of ring networks is failing" is anticipated by switch 410 of Figure 5, which receives K-byte changes that indicate lines with signal failure as spoken of in column 5, lines

53-57. Lastly, "means for rerouting frames of the failing ring network" is anticipated by spans 414 and 416 that initiate line switching, ring switching, or route changing as stated in column 5, lines 59-63.

Regarding claims **31 and 32**, wherein the portion of a frame includes K-bytes of a SONET STS is anticipated by K-byte detection spoken of in column 5, lines 47-63.

Regarding claim **33**, "wherein the means for rerouting frames comprises means for rerouting frames in accordance with a APS protocol" is anticipated by the SONET automatic protection switching spoken of in column 5, lines 10-21 where errors noted in K-bytes may initiate switching between a working line and a protection line.

Regarding claim **34**, "wherein the plurality of ring networks are SONET BLSR networks" is anticipated by the SONET BLSR networking spoken of in column 1, lines 16-26.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any

inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims **13-17 and 20-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi et al. (U.S. 6,654,341).

Regarding claim **13**, Chi et al. teaches sharing switch 508 (single network element) of Figure 5 that is a member of both ring networks 500 and 510 and passes information between these ring networks as stated in column 2, lines 57-60. Chi et al. also teaches monitor module 424 of Figure 4, which monitors incoming K-bytes for changes indicating an error (failure condition). Chi et al. also teaches switch 410 of Figure 5, which receives K-byte changes that indicate lines with signal failure as spoken of in column 5, lines 53-57. Chi et al. also teaches spans 414 and 416 that initiate line switching, ring switching, or route changing (process failure condition) as stated in column 5, lines 59-63.

Chi et al. does not explicitly teach computer readable program code associated with the hardware components of Figure 4 that carry out the claimed functions. However, since Chi et al. teaches a system and a method for performing the claimed functions, it is held that it would be obvious to someone of ordinary skill of the art at the time of the invention to generate some form of

computer-readable program code that uses the teachings of Chi et al. in order to achieve the same result while reducing hardware dependency.

Regarding claims **14 and 15**, Chi et al. further teaches SONET BLSR ring networks in column 1, lines 16-26.

Regarding claim **16**, Chi et al. teaches monitor modules 424 (line interfaces) in Figure 4 that each have a plurality of physical SONET lines 430 that connect to other switches as stated in column 4, lines 28-30. Chi et al. also teaches monitor module 424 (cross-connect device) of Figure 4, which monitors incoming K-bytes for changes indicating an error (failure condition).

Chi et al. does not explicitly teach a computer program associated with the hardware components of Figure 4 that carry out the claimed functions. However, since Chi et al. teaches a system and a method for performing the claimed functions, it is held that it would be obvious to someone of ordinary skill of the art at the time of the invention to generate some form of computer program that uses the teachings of Chi et al. in order to achieve the same result while reducing hardware dependency.

Regarding claim **17**, Chi et al. further teaches SONET BLSR ring networks in column 1, lines 16-26.

Regarding claim **20**, Chi et al. teaches a line card 420 (processor) that contains a plurality of monitor modules 424 (interfaces), which each have a plurality of physical SONET lines 430 that connect to other switches as stated in column 4, lines 28-30. Chi et al. also teaches monitor module 424 of Figure 4, which monitors incoming K-bytes for changes indicating an error (failure

condition). Chi et al. also teaches switch 410 of Figure 5, which receives K-byte changes that indicate lines with signal failure as spoken of in column 5, lines 53-57. Chi et al. also teaches spans 414 and 416 that initiate line switching, ring switching, or route changing (process failure condition) as stated in column 5, lines 59-63.

Chi et al. does not explicitly teach a computer readable medium containing computer code associated with the hardware components of Figure 4 that carry out the claimed functions. However, since Chi et al. teaches a system and a method for performing the claimed functions, it is held that it would be obvious to someone of ordinary skill of the art at the time of the invention to generate some form of computer code within a computer readable medium that uses the teachings of Chi et al. in order to achieve the same result while reducing hardware dependency.

Regarding claims **21 and 22**, Chi et al. further teaches K-byte detection spoken of in column 5, lines 47-63.

Regarding claim **23**, Chi et al. further teaches SONET automatic protection switching spoken of in column 5, lines 10-21 where errors noted in K-bytes may initiate switching between a working line and a protection line.

Regarding claim **24**, Chi et al. further teaches SONET BLSR ring networks in column 1, lines 16-26.

Regarding claim **25**, Chi et al. also teaches monitor module 424 of Figure 4, which monitors incoming K-bytes for changes indicating an error (failure condition). Chi et al. also teaches switch 410 of Figure 5, which receives K-byte

changes that indicate lines with signal failure as spoken of in column 5, lines 53-57. Chi et al. also teaches spans 414 and 416 that initiate line switching, ring switching, or route changing (process failure condition) as stated in column 5, lines 59-63.

Chi et al. does not explicitly teach a computer program product containing instructions associated with the hardware components of Figure 4 that carry out the claimed functions. However, since Chi et al. teaches a system and a method for performing the claimed functions, it is held that it would be obvious to someone of ordinary skill of the art at the time of the invention to generate some form of instructions within a computer readable medium that uses the teachings of Chi et al. in order to achieve the same result while reducing hardware dependency.

Regarding claims **26 and 27**, Chi et al. further teaches K-byte detection spoken of in column 5, lines 47-63.

Regarding claim **28**, Chi et al. further teaches SONET automatic protection switching spoken of in column 5, lines 10-21 where errors noted in K-bytes may initiate switching between a working line and a protection line.

Regarding claim **29**, Chi et al. further teaches SONET BLSR ring networks in column 1, lines 16-26.

Response to Arguments

Amendments made to claims **7-9, 22, 23, 27, 28, 32, and 33** to obviate rejection under 35 U.S.C. § 112 are proper and have been entered. These rejections have been withdrawn.

6. Applicant's arguments with respect to claim rejections of claims **5-9, 13-17, and 20-34** under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) have been considered but are moot in view of the new ground(s) of rejection provided above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chang et al. (U.S. 6,226,111), Chi et al. (US 2003/0179702), Li et al. (U.S. 6,616,349), Badr (U.S. 6,775,477), Nathan et al. (U.S. 6,295,146), Wu (U.S. 5,442,623), and Madonna (U.S. 6,002,683) are all references that contain material pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (703) 305-8703. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (703) 308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.
Examiner
Art Unit 2666

mjm MM

FRANK DUONG
PRIMARY EXAMINER